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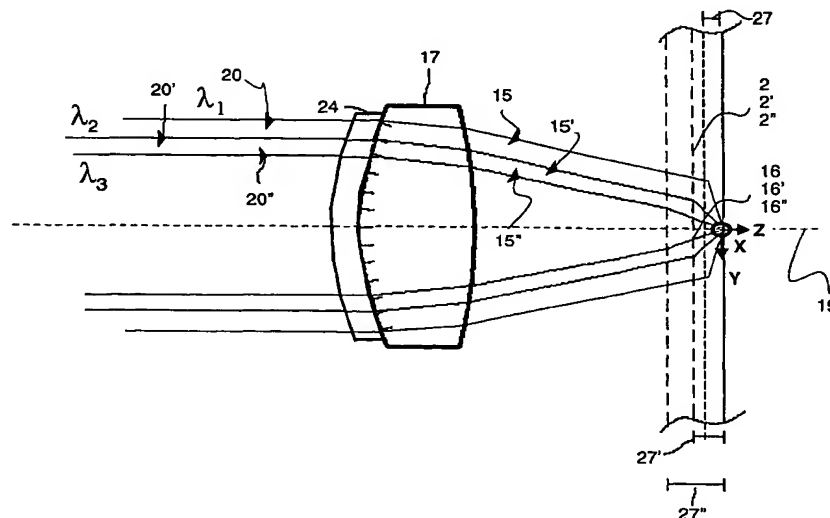
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(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: An optical device (1) for scanning three information layers (2, 2', 2'') by means of three radiation beams (20, 20', 20'') having three respective wavelengths ($\lambda_1, \lambda_2, \lambda_3$) and polarizations (p_1, p_2, p_3), wherein the three wavelengths substantially differ from each other. The device comprises a radiation source (7) for emitting the three radiation beams, an objective lens system (8) for converging the three radiation beams beam on the positions of the three respective information layers, and a phase structure (24) having a non-periodic stepped profile. Furthermore, the structure includes birefringent material sensitive to the three polarizations and the stepped profile is designed for introducing three wavefront modifications ($\Delta W_1, \Delta W_2, \Delta W_3$) for the three wavelengths, respectively, wherein one of the wavefront modifications is of a type different from the others and one of the polarizations differs from the others.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	paragraphs '0004!', '0020!'-'0032!', '0044!'-'0068!; figures 4-9	12, 16
A	---	6, 9
X	EP 1 126 291 A (ASAHI GLASS CO LTD) 22 August 2001 (2001-08-22) paragraphs '0002!'-'0026!', '0080!'-'0084!; figure 8 --- -/--	15

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	HENDRIKS B H W ET AL: "Application of nonperiodic phase structures in optical systems" APPLIED OPTICS, 10 DEC. 2001, OPT. SOC. AMERICA, USA, vol. 40, no. 35, pages 6548-6560, XP002264634 ISSN: 0003-6935 cited in the application	12,16
A	figures 1,6	1-11, 13-15
A	----- PATENT ABSTRACTS OF JAPAN vol. 2002, no. 03, 3 April 2002 (2002-04-03) & JP 2001 318231 A (ASAHI GLASS CO LTD), 16 November 2001 (2001-11-16) abstract -----	1-16

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Information on patent family members

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